

REMARKS

The Office Action of January 25, 2006 has been carefully considered.

Claim 1 has now been amended to recite that the ingot is hot rolled, and that the aging process is a single step or a two step process, as is disclosed in the specification in the paragraph bridging pages 6 and 7. Claim 7 has also been amended to recite that the ingot is hot rolled, and to correct the definition of the parallelogram as "ABCD" to correspond to the definition of the points of the parallelogram recited in the claim. Claim 12 has been canceled since it would be outside the scope of amended claim 1.

Claims 1-6, 9-12 and 26-27 have been rejected under 35 USC 103(a) over Chakrabarti et al.

The Office Action points out that the Declaration under 37 CFR 1.131 filed on August 5, 2005 does not overcome Chakrabarti et al because the reference is based on a provisional application filed on December 21, 2000, and the declaration does not swear behind that date.

Applicant, however, points out that entitlement to the date of December 21, 2000 is based on a *claim* to priority only, and no evidence has been introduced to show that Chakrabarti et al were actually in possession of the invention disclosed in Published Application 2002/0121319 as of that date. MPEP 901.04 states "[t]he 35 U.S.C. 102(e) prior art date of a U.S. patent issued from a nonprovisional application claiming the benefit of a prior provisional application (35 U.S.C. 111(b)) is the filing date of the provisional application *for subject matter that is disclosed in the provisional application*" (emphasis added). Clearly, there is no requirement in the statute that the content of the provisional application be the same as the content of the later filed application 09/971,456; Applicant submits that if the Examiner seeks to rely on the

provisional filing date, a copy of the provisional application should be provided to the Applicant to establish its relevance.

Moreover, Applicant now submits a Supplemental Declaration by inventor Timothy Warner, establishing that Exhibits A and B attached to the Declaration filed on August 5, 2005 were issued earlier than December 21, 2000.

The following table sets forth a comparison of amended claim 1 and the disclosure of Exhibit B.

Amended Claim 1	Exhibit B
Process for the manufacture of a work hardened product made of a high mechanical strength Al-Zn-Mg-Cu aluminium alloy comprising :	Exhibit B deals with a process of manufacturing plates in 7449 alloy which is a high mechanical strength Al-Zn-Mg-Cu alloy
- casting an ingot made of an alloy with composition (% by weight)	Examples are derived from casting #25 (page 3)
Zn = 7.0 - 11.0,	7449: 7.5 - 8.7 / Table 1: 8.38
Mg = 1.8 - 3.0;	7449: 1.8-2.7 / Table 1: 2.15
Cu = 1.2 - 2.6,	7449: 1.4 - 2.1 / Table 1: 1.96
at least one of the elements Mn (0.05 - 0.4), Cr (0.05 - 0.3), Zr (0.05 - 0.20), Hf (0.05 - 0.5), V (0.05 - 0.3), Ti (0.01 - 0.2) and Sc (0.05 - 0.3),	7449 Ti+Zr < 0.25 Mn < 0.2 Table 1 Zr: 0.109
the remainder being made of aluminium and inevitable impurities,	
possibly homogenisation of said ingot,	Not mentioned in exhibit B but optional
Hot rolling said ingot	Hot rolling is mentioned in Table 2
solution heat treatment and quenching of the product obtained,	MeS in Table 2 means "Mise en Solution" = solution heat treatment; Quenching is mentioned in Table 2
possibly controlled stretching with a permanent set between 1 and 5%,	2.4 and 2.8 % in Table 2
Artificially aging with a single step or two steps treatment the quenched and optionally stretched product	One step and two steps aging treatment are described in Table 3
at a temperature and with a duration equivalent to about 100 - 230 hours at 120 °C,	In Figure 1 and 2, 1E-16 Equivalent time is equal to 34 hours at 120 °C Figure 1 and Figure 2 clearly show that the optimized treatment for compression is comprised between 3E-16 and 6.5 E-16 (102 to 221 hours at 120 °C)
sufficient to maximize compression yield strength in the L direction.	Exhibit B demonstrates an improvement in static properties of + 25 MPa and encourages to maximize compression yield strength (page 4).

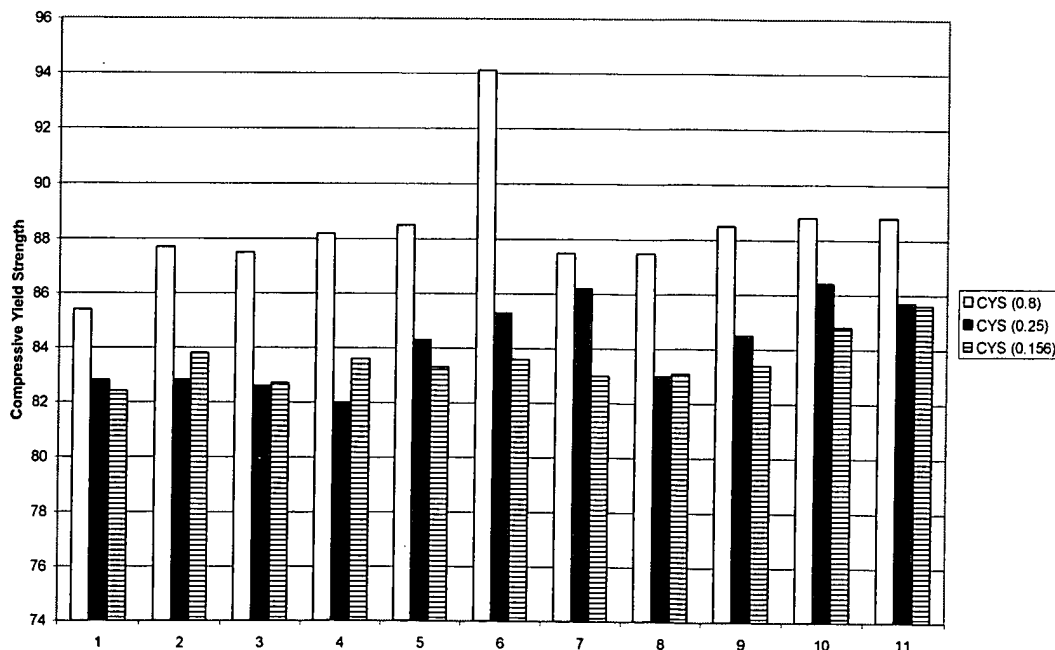
Exhibit B provides evidence that the invention was reduced to practice before December 21, 2000. Exhibit A is concerned with the conception of the invention.

Withdrawal of the rejection over Chakrabarti et al is again requested.

Claims 1-7, 9-10 and 25-30 have been rejected under 35 USC 103(a) over Ponchel et al. Ponchel et al discloses an alloy of overlapping composition which is aged at a temperature of about 275°F (135°C) for a period of 6-30 hours, as compared with about 24-60 hours according to Fig. 2 of the present application.

Ponchel deals with extruded products, as is clear from the examples, and does not teach an optimized compressive yield strength.

Applicant disagrees with the assertion that the value of 94.1 ksi is not a typo or a poor measurement. A graph of compressive yield strength for the different samples described by Ponchel in Tables I, II and III is shown below. Sample 6 does not exhibit a significantly different compressive yield strength for the thicknesses 0.156 and 0.25, and it is very unlikely that the sample would exhibit a compressive yield strength 10% higher than the other samples for a thickness of 0.8.



Moreover, for all the results provided by Ponchel, the value of 94.1 is the only one which is detected as an outlier with the Dixon test for extreme values (Dixon test is positive with 1% error probability if the value is higher than 0.679).

Sorted values	TS(0.8)	YS (0.8)	CYS (0.8)	TS(0.25)	YS (0.25)	CYS (0.25)	TS(0.156)	YS (0.156)	CYS (0.156)
Y1	95.9	90.3	85.4	90.5	83.1	82	90.4	81.7	82.4
Y2	96.7	90.8	87.5	91	83.5	82.6	90.7	82.3	82.7
Y3	96.9	91.2	87.5	91	83.5	82.8	91.2	83.3	83
Y4	97.1	91.4	87.5	91.7	84.3	82.8	92	83.3	83.1
Y5	97.5	92	87.7	92	85	83	92.2	83.8	83.3
Y6	97.8	92.2	88.2	92.2	85.3	84.3	92.3	84.2	83.4
Y7	98	92.2	88.5	92.6	85.4	84.5	92.4	84.3	83.6
Y8	98.4	92.5	88.5	92.9	85.5	85.3	92.8	84.3	83.6
Y9	98.4	92.7	88.8	93.7	86.2	85.7	93	85.3	83.8
Y10	99.9	92.8	88.8	94.1	86.6	86.2	95.1	85.6	84.8
Y11	100.2	93.5	94.1	95.4	87.4	86.4	95.1	86.7	85.6
Dixon test higher value (Y11 - Y9)/(Y11 - Y2)	0.51	0.30	0.80	0.39	0.31	0.18	0.48	0.32	0.62
Dixon test lower value (Y3 - Y1) / Y10 - Y1)	0.25	0.36	0.62	0.14	0.11	0.19	0.17	0.41	0.25

Also, the preferred range of Ponchel is outside the range of the claimed invention for zinc.

Withdrawal of this rejection is requested.

Claims 1-7, 9-12 and 25-30 have been rejected under 35 USC 103 over Nakai et al.

The teaching of Nakai et al encompasses all 7000 series alloys, as opposed to the claimed invention which is directed to 7000 series alloys within a defined composition range. It cannot be asserted that it would have been obvious to select the claimed range from the Nakai et al disclosure because the teaching of Nakai et al is so broad, and there is nothing to lead one of ordinary skill in the art to the compositions of the present claims.

For example, the examples provided by Nakai et al are very far from the claimed invention, with Zn in Nakai et al less 6 wt.%, as opposed to greater than 7% according to the invention.

Further, Nakai et al is directed only to a three step aging treatment, whereas the claimed invention is directed to one and two step treatments.

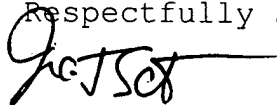
The aging treatments taught by Nakai et al are not optimized versus compressive yield strength; indeed compressive yield strength is not even mentioned in Nakai et al. What is meant by "strength" in Nakai et al (Tables 1 and 2) is not explained.

The starting point for Nakai et al seems to be a treatment of 24h at 120°C (column 4, line 5) which is very far from the claimed invention, where the minimum treatment is 100 h equivalent at 120 °C.

Withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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